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Responsibility from the perspectives of philosophy and science

Odpowiedzialność z perspektywy filozoficznej i naukowej

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Łukasz Kurek

Lawyer and philosopher, assistant professor at the Department of Philosophy of Law and Legal Ethics at the Jagiellonian University, member of the Copernicus Center for Interdisciplinary Studies. Stipendist of the Foundation for Polish Science. Author or co-author of publications pertaining to legal philosophy and philosophy of mind, including *Dualizm przekonań* (Copernicus Center Press 2016).

Abstract:

In the first part of the paper, two methods of philosophical study of moral responsibility are presented: rational and naturalistic. Next, the results of the research on the conditions of ascription of moral responsibility based on both methods will be discussed. These conditions aim to find a place for moral responsibility within the folk image of the world. It will be shown that both methods lead to similar results – the condition of ascription of responsibility is the capacity to control one's action. In the last part of the paper, empirical research pertaining to responsibility and its relationship with folk intuitions will be assessed.

Keywords:

responsibility, naturalism, action control, experimental philosophy

Streszczenie:

W pierwszej części artykułu przedstawione zostaną dwie metody filozoficznych badań odpowiedzialności: metoda racjonalistyczna i metoda naturalistyczna. Następnie omówione zostaną wyniki badań dotyczących warunków przypisywania odpowiedzialności uzyskane za pomocą tych dwóch metod, z których obie prowadzą do wskazania miejsca odpowiedzialności w potocznym obrazie świata. Jak się okaże, obie metody prowadzą do zbieżnych rezultatów, gdyż w obu przypadkach warunkiem przypisywania odpowiedzialności będzie posiadanie tego samego rodzaju kontroli działania. W ostatniej części artykułu przedstawione zostaną naukowe badania związane z odpowiedzialnością oraz ich związek z dotyczącymi jej potocznymi intuicjami.

Słowa kluczowe:

odpowiedzialność, naturalizm, filozofia eksperymentalna, kontrola działania

1. Introduction

The naturalization of responsibility, or the search for naturalistic conditions for ascriptions of responsibility is one of the hotly debated issues within philosophy. This state of affairs can be explained by pointing to two issues related to philosophical method understood *in abstracto*. First of all, due to the development of empirical sciences, the usefulness of the traditional philosophical method, that is conceptual analysis, is being questioned more and more frequently and for justified reasons. According to the traditional view, one of the basic aims of conceptual analysis is to reveal intuitions about meanings related to the concepts studied, which is to enable, among other things, a correct understanding of phenomena corresponding to these concepts. The starting point of this analysis is therefore the philosopher's beliefs, which indicate how a given concept should be understood. Guided by his intuitions, he then breaks down the studied concept into more basic parts, thus defining the necessary and sufficient conditions for a given concept - i.e., the conditions for understanding the phenomenon to which it refers. Conceptual analysis understood in this way is therefore a rational or a priori method, as it does not require experimental confirmation of the results of these studies. This rationalism would not be particularly problematic for philosophers, if not for some of its consequences. Many philosophical arguments are based on premises or lead to conclusions that seem to contradict the facts revealed by experimental

science, i.e. by cognitive science, the purpose of which is to explain the mind. In fact, these sciences examine the same phenomena that have been the subject of philosophers' interest for millennia – perception, memory, meaning, will or consciousness. The method which allows to avoid this danger - the naturalistic method – consists in basing one's research on data from these very sciences, not on the philosopher's intuition. The acceptance of the naturalistic method does not, of course, force the rejection of conceptual analysis, because, as it turns out, it plays an important role at various stages of study. However, identifying this analysis with the search for necessary and sufficient conditions for understanding a given phenomenon - that is, searching for the essence of this phenomenon - is not particularly convincing.

The second issue related to the philosophical method, which causes a special interest in the issue of responsibility, is based on a certain uniqueness of this problem. This uniqueness lies in the fact that the problem of responsibility seems to elude the naturalistic method of inquiry and is seems to be suited to the rational method. The reason for this is that responsibility is a phenomenon belonging to the folk image of the world. The problem of conditions of responsibility ascriptions would not occur if, in the folk image of the world, there were no contradictory intuitions about when someone could be considered responsible for a given act. Due to the fact that the starting point of the research on the rational method is intuition, this method seems to

be particularly well suited to this problem. In turn, the scientific investigations, in the case of which the naturalistic method seems to be appropriate, does not allow us to see why recognizing someone as responsible for a given act may be problematic. However, only with the use of the naturalistic method is it possible to reconstruct psychological mechanisms that play a role in the context of responsibility ascriptions. Thanks to such a reconstruction, it is possible to indicate whether the intuitions connected with ascribing responsibility are justified. For example, if it turns out that these intuitions are created by psychological mechanisms that generate systematic cognitive errors, then these intuitions will not be justified. In the first part of the article, two methods of philosophical research on respon-

2. Responsibility from the philosophical perspective

The philosophical research on responsibility can be divided into two related fields. Firstly, these studies concern the psychological mechanisms that generate judgments which ascribe responsibility. Following Peter Strawson, they can be collectively described as reactive attitudes, which include various emotions, such as anger, resentment or gratitude^[1]. Secondly, these studies deal with a collection of folk beliefs about responsibility, which include beliefs about appropriate conditions of responsibility ascription that make up the notion of responsibility and which are at the heart of the intuitions about this phenomenon.

Many philosophical arguments are based on premises or lead to conclusions that seem to contradict the facts revealed by experimental science, i.e. by cognitive science, the purpose of which is to explain the mind.

sibility will be presented: the rational method and the naturalistic method. Next, the results of research on the conditions of responsibility ascriptions obtained by means of these two methods will be presented. Both of them allow to find a place for responsibility within the folk image of the world. As it turns out, both methods lead to convergent results, because in both cases the condition for ascribing responsibility will be connected with a similar type of control of the action. The last part of the article will present scientific research related to responsibility and its relationship with its folk intuitions.

Methods of philosophical studies on responsibility can be divided into two types: the rational and the naturalistic. Studies based on the rational method mainly concern the second field of research described above, that is folk beliefs regarding responsibility. Rationalism in this context consists in the analysis of the concept of responsibility, and in particular in the analysis of the relationship between this concept and, for example, concepts such as determinism or free will. These analyzes usually lead to claims about

¹Strawson, P. (1993) Freedom and Resentment, in: Fischer, J., Ravizza, M. (eds.), *Perspectives on Moral Responsibility*, Ithaca, p. 45–66.

the necessary and sufficient conditions for responsibility ascriptions. The naturalistic method, however, boils down to studying the first field mentioned above, i.e. the psychological mechanisms that generate responsibility ascriptions. Thus, the difference between rationalism and naturalism is limited not only to the subject of research, but also to the method used.

Paradigmatic examples of rational studies of responsibility are carried out by the proponents of the two main philosophical views about the relation of responsibility and determinism: incompatibilism and compatibilism. Incompatibilism is a stance, according to which responsibility is not compatible with determinism. In other words, the incompatibilists say that the subject cannot be responsible for his actions if they were a consequence of earlier events and natural laws. The intuition of the incompatibilists is well reflected by the so-called principle of alternate possibilities, according to which a person is responsible for his act only if he could have done otherwise, and this situation cannot take place in a deterministic world. In recent years, the discussion about whether the incompatibilistic stance is correct has become particularly strenuous, but in the present context, it is interesting to note that incompatibilists make an attempt to clarify the concept of responsibility, which they usually link with the aforementioned principle of alternate possibilities.

Compatibilists claim, however, that a person can be responsible even in a deterministic world. They also argue that determinism not only does not undermine responsibility, but that it is required for the person to be responsible for her actions. Compatibilists try to explain the concept of responsibility, referring, for example, to having the appropriate control over one's actions.

Therefore, if a person has adequate control over her actions, then she can be responsible for these acts. This control is often described as the ability to act in accordance with one's desires and beliefs. In other words, as the ability to act in accordance with one's reasons.

Interestingly, in the case of the rational method, despite its focus on conceptual analysis, great attention is paid to the consistency of these analyses with practices of ascribing responsibility. However, most often the conceptual analyses in question are supported by thought experiments related to specific actions for which responsibility is ascribed; the experiments are supposed to support these analyses or to challenge the position of the opponent.

The basic problem connected with the rational method of studying responsibility lies in the fact that conceptual intuitions are regarded as the main support of these conceptual analyses^[2]. It is not a fact that philosophers do not realize, and many of them clearly state that an important argument supporting their views about responsibility ascriptions is the intuitiveness of these conditions. They are not referring to their intuitions or intuitions of other philosophers. It is unconvincing to refer to one's own intuition, if only because everything seems to indicate that the intuitions of philosophers in this matter are in conflict. This conflict also leads to the conclusion that it cannot be about the intuitions of other philosophers. The intuitions referred to here are to be held by the majority of ordinary people. These intuitions cannot be regarded as a conclusive argument, but they are certainly considered important. The problem is, however, that, as it turns out, the empiri-

²Kane, R. (1999) Responsibility, Luck, and Chance: Reflections on Free Will and Indeterminism, *Journal of Philosophy*, vol. 96, p. 217.

cal studies of folk intuitions regarding the conditions responsibility ascriptions indicate that these intuitions do not support the two main, philosophical solutions to this problem, namely compatibilism and incompatibilism.

In the context of naturalistic studies on responsibility, David Hume's investigations are a good example. Despite the fact that he is sometimes regarded as a classical compatibilist who claims that responsibility is compatible with determinism, the nature of psychological mechanisms underpinning responsibility ascriptions is the most important in his conception^[3]. Namely, Hume notices that in the case of responsibility ascriptions, emotions are crucial, namely the approval or disapproval of a given act, and it is these emotions that are the starting point in his inquiry.

He also believes that the mechanism generating these emotions is so universal and stable that it can be described analogously to phenomena related to motion, optical phenomena or any other natural phenomena^[4]. Describing this mechanism in more detail, the author of *Treatise on Human Understanding* states, for example, that the emotions underlying the practice of responsibility ascriptions are clearly retributive, that is, they are directed to the past, and not to the future to prevent similar acts. Furthermore, this mechanism is simply a natural disposition of the person and - although it is not clear to what extent it is modifiable - it cannot be modified to a greater extent by philosophical arguments^[5].

Therefore, the Scottish philosopher comes to the conclusion, using an 'experimental method of reasoning with a moral subject' instead of a typical conceptual analysis, that conceptual analyses of responsibility cannot have a greater impact on the practices associated with its ascription^[6]. Therefore, even if a certain philosopher took a compatibilist position, thus limiting incompatibilist postulates pertaining to responsibility pertaining to determinism, he cannot dispose of emotional reactions towards acts committed in certain circumstances; these reactions are innate to all normal members of society. This is despite the fact that these emotions would not be justified if - following incompatibilists, it persons cannot be responsible for their actions in a deterministic world.

2.1. Responsibility and the rational method of inquiry

As already mentioned, research on responsibility with the use of rational method most often boils down to inquiries pertaining to relations between the concept of responsibility and the concepts of determinism or free will. There exists, however, a current within these studies that resigns from the metaphysical justification of responsibility, focusing on conditions that must be met by the psychological process underpinning the act, so that responsibility ascription is justified. Therefore, despite the fact that the object of interest of philosophers within this current is a certain aspect of the human mind's, similarly to Hume, they do not conduct empirical research. Instead they try to indicate the aforementioned

³Russell, P. (1995) *Freedom and Moral Sentiment. Hume's Way of Naturalizing Responsibility*, Oxford, p. 67.

⁴Ibidem, p. 5.

⁵Hume, D. (2005) *Traktat o naturze ludzkiej*, tran. Cz.

Znamierowski, Warszawa, p. 296.

⁶Ibidem, p. 546.

conditions through conceptual analyzes and various thought experiments.

Often these experiments are based on the scheme proposed by Harry Frankfurt⁷. An example of such a thought experiment is as follows:

Kazimierz J. decides to murder his political opponent, Bogusław C., with whom he clearly loses in polls carried out before the elections to the Senate. Kazimierz J. is the second candidate for a senator in terms of popularity in his district, and he realizes that by getting rid of his rival, he will secure himself a win in the elections. Kazimierz J. speaks about his plan to his good friend, Maksymilian T., who is an

allows to indicate intuitions related to the type of control of action that justifies the ascription of responsibility. It seems that Kazimierz J. can be considered responsible for the murder of Bogusław C., despite the fact that he did not have the ability to do otherwise, that is, the absolute control over his actions. If he made the decision not to carry out his plan, then the implant would 'force' him to do it. This suggests that what is truly important in order to ascribe responsibility, is the nature of the actual psychological mechanism leading to the action. Due to the fact that in the discussed case, the decision-making process of Kazimierz J. was not manipulated and he behaved in accordance with his beliefs and desires, that is according to his reasons, the intuitions pertaining to respon-

In conclusion, this kind of research on responsibility, ased onthe rational method, indicates that the intuitions associated with responsibility ascriptions are strongly related to the actual sequence of events that resulted in the action.

outstanding neurosurgeon. Maksymilian C. fully supports his friend's plan because he feels exceptional antipathy toward Bogusław C. He supports this plan to the extent that he places an implant in the brain of Kazimierz J. which monitors the processes taking place therein. If Kazimierz J. decided to refrain from implementing his plan, this implant would 'force' him to murder Bogusław C. However, Kazimierz J. stays calm and kills his political opponent.

The above example is obviously unrealistic, but it

sibility suggest that he is responsible for his act. The type of control Kazimierz J. possess, guidance control, has been thoroughly analyzed by John Fischer and Mark Ravizza⁸. They indicated that the person has guidance control over his actions when her actual decision-making mechanism, which operated in a particular situation, is reason-responsive.

Reason-responsiveness can be weak or strong⁹.

⁷Frankfurt, H. (2007) Alternate Possibilities and Moral Responsibility, in: Watson, G. (ed.), *Free Will*, Oxford, issued 2, p. 167–176.

⁸Fischer, J., Ravizza, M. (1998) *Responsibility and Control. A Theory of Moral Responsibility*, Oxford.

⁹Ibidem, p. 42.

The strong reason-responsiveness is the capacity to act in accordance with a sufficient reason for action in every case the person has this reason. For example, if the decision-making mechanism of Kazimierz J. was strongly reason-responsive, in view of the fact that he has a sufficient reason to murder Bogusław C., namely that it will enable him to win the election, a course of events in which he does not kill his rival is impossible. On the other hand, weak reason-responsiveness is the capacity to act in accordance with a sufficient reason for action in some possible scenario. The decision-making mechanism of Kazimierz J. would be weakly reason-responsive if it would be possible for him to act on the sufficient reason to murder Bogusław C.

Strong reason-responsiveness is too strong a condition for responsibility ascription. One can imagine a case in which a person commits theft, despite the fact that she has sufficient reason to refrain from this act, such as the conviction that he will be caught. Despite this, if in the current sequence of events leading to the decision to commit theft something that would undermine his guidance control would not occur, then we can certainly ascribe her responsibility. In order for her to be considered responsible, it is enough that she has weak reason-responsiveness. This ability does not guarantee that she will always act in accordance with a sufficient reason for action, but it guarantees that there is a scenario in which she will act in accordance with this reason. So, if she would find out that if she were to commit theft, she would surely be caught by the police, then she would not commit this crime in some possible course of events. Knowledge that if she commits the crime, she will certainly be caught, is a sufficient reason for action.

On the other hand, if there is no course of events

when the person can act on a sufficient reason, then this person has no guidance control and cannot be responsible. For example, the actual decision-making mechanism of Kazimierz J. is weakly reason-responsive, because if he was convinced that his crime would be detected, then a course of events is possible in which he does not commit the murder. It could occur if the implant was not placed inside his brain.

In conclusion, this kind of research on responsibility, based on the rational method, indicates that the intuitions associated with responsibility ascriptions are strongly related to the actual sequence of events that resulted in the action. If there is nothing in this sequence that would undermine the subject's decision-making capacity, responsibility ascription is justified to the subject. In particular, according to this view, absolute control is not required to ascribe responsibility.

2.2. Responsibility and the naturalistic method of inquiry

The above inquiries pertain to conceptual intuitions about conditions of responsibility ascription. It seems that the reconstruction of the folk image of responsibility requires also empirical investigations of these intuitions. As already mentioned, the philosophical intuitions related to responsibility are not particularly representative, if only because of the numerous inconsistencies between them.

Interestingly, empirical research on folk intuitions about responsibility suggest at least two very different hypotheses of how we intuitively think about responsibility. What is more, these hypotheses correspond to the aforementioned distinction between absolute and regulative control. Joshua Knobe formulated the first of these

hypotheses and named it the transcendence vision^[10]. This hypothesis assumes that according to the folk intuitions, the person is outside the

normal causal order, so she is not determined by external causes in the environment and by internal (e.g. psychological) causes. In other words, the person has absolute control over her actions. Supporting his hypothesis, Knobe pointed to the results of several empirical studies, two of which seem particularly interesting.

In the first experiment, conducted by Shaun Nichols and Joshua Knobe, the subjects were divided into two groups^[11]. Members of each of them were then presented with one scenario, with the scenario in one group being abstract and specific in the other one. Both, however, took place in universe A, which is deterministic. The first group was then asked whether in universe A, it was possible for someone to be responsible for his actions (abstract scenario). The second group was asked whether a particular person had been responsible for a particular act, which was described in detail in the scenario presented to them. The results of this experiment were surprising: 72% of respondents presented with the concrete scenario stated that the protagonist of the scenario was responsible for his action, and in an abstract situation, 86% of respondents stated that responsibility in the deterministic world was impossible. This test indicates, at least *prima facie*, an inconsistency in folk intuitions regarding the conditions of responsibility ascriptions. This inconsistency

is one of the arguments against basing philosophical conceptions of responsibility on folk intuitions. Knobe explains this result referring to the transcendence vision: the intuition about the lack of responsibility in the abstract scenario results from the belief that in such a world, a person cannot influence her own actions. In the concrete scenario, there is no specific cause that would undermine the influence of the protagonist of the scenario on his act.

The second experiment, conducted by Eddy Nahmias and Dylan Murray, pertained to the folk understanding of internal causation - that is, the causality of beliefs or desires - and its influence on the ascription of responsibility^[12]. In this study, the participants were informed that everything in universe A happened according to deterministic laws. However, they were then asked whether they agreed or disagreed with the following statements: (1) in universe A, what a person believes does not affect her actions; (2) in universe A, what a person desires does not affect her actions.

Most of the respondents agreed with these statements. This suggests that they understood internal causality as being beyond the ordinary causal order, because determinism undermines it.

This result is also surprising because in modern philosophy, the dominant view of the folk understanding of mental states' influence is that this influence is causal. If this were the case, however, then in the above experiment, the participants should have responded that in the deterministic world, beliefs and desires influence the actions undertaken - precisely

^[10]Knobe, J. (2014) Free Will and Scientific Vision, in: Machery, E. (ed.), *Current Controversies in Experimental Philosophy*, New York, p. 69–85.

^[11]Nichols, S., Knobe, J. (2008) Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions, in: Knobe, J., Nichols, S. (eds.) *Experimental Philosophy*, Oxford, p. 105–128.

^[12]Nahmias, E., Murray, D. (2010) Experimental Philosophy on Free Will: An Error Theory for Incompatibilist Intuitions, in: Aguilar, J., Buckareff, A., Frankish, K., (eds.), *New Waves in Philosophy of Action*, Hampshire, England, p. 189–216.

because they are the causes of these actions, or they at least to some extent determine them. Knobe explains the result of this experiment referring to the vision of transcendence, according to which the relation between the mental states of a person and his actions is not causal, but rational. In other words, the explanation of actions referring to mental states is based on reasons and reasons are not ordinary causes. As Knobe points out, it is difficult to provide an uncontroversial description of the explanation based on reasons, but one can agree with the claim that this explanation assumes that a person can choose actions on the basis of his reasons, regardless of the fact that she is affected by 'ordinary' causes.

On the other hand, according to another hypothesis proposed by Nahmias and Thompson, named 'causal competition principle', responsibility will usually be ascribed when person's reasons influence her reasons^[13]. In other words, if conscious deliberation cannot influence the decision to act, then, usually, responsibility will not be ascribed. This claim to some extent corresponds to the above explanation of the results of the experiment regarding the folk understanding of the influence of beliefs and desires on the acts given by Knobe. He argued that in the context of folk understanding of the conditions of responsibility ascription, what is important is whether the reasons are not deprived of the possibility to influence action. In contrast to Knobe, Nahmias and Thompson argue, however, that the understanding of persons as transcendental in relation to ordinary causal order does not belong to the folk intuitions about responsibility. According to the causal com-

petition principle the folk understanding of responsibility is closely related to the concept of guidance control.

The causal competition principle is supported by the results of another experiment in which two scenarios are presented to participants^[14]. According to the first scenario, in the future, scientists will be able to predict every decision with 100% accuracy by means of a scanner investigating the brain activity of the person making the decision. The protagonist of this scenario, Jill, agrees to wear the scanner for a month as a participant in the scientific experiment (is the scanner is built in into a light hat). On the day of the governor and presidential election, during which she is carrying the scanner, Jill wonders which candidate to vote for. Researchers monitoring Jill's brain activity make a prediction about her choice and, as it turns out, their predictions completely coincide with her actual decision. 90% of the respondents who were presented with this scenario considered that Jill was responsible for how she voted. The second scenario presented to the participants also included information about the possibility of an accurate prediction of decisions based on the observation of brain activity. However, in this version, the researchers are also able to influence Jill's decision with her being unaware about this. What is more, they influence her decision about the vote. In this scenario, 72% of participants responded that Jill is not responsible for her decision.

Nahmias and Thompson claim that the ability to predict decisions based on brain activity is not a reason to undermine responsibility, what is particularly important, that people do not recognize the mind or the self as something that is beyond

¹³Nahmias, E., Thompson, M. (2014) A Naturalistic Vision of Free Will, in: Machery, E. (ed.), *Current Controversies in Experimental Philosophy*, New York, p. 97.

¹⁴Ibidem, p. 91–95.

the ordinary causal order. The respondents' answers in the first scenario indicate that even if such a prediction is made, the person still has the opportunity to influence her own behavior by consciously considering the alternatives available and then selecting one of them. This happens even when the processes occurring in the brain cause decisions. This conclusion is also supported by responses given by participants presented with the second scenario, in which Jill's choice was manipulated by scientists. In this situation, she is unable to influence her behavior through conscious deliberation and participants do not ascribe her responsibility.

Nahmias and Thompson suggest that 'people will be reluctant to hold an agent responsible for behavior when they interpret her behavior as being fully caused by factors that do not include any of her reasons (or by processes that do not include any of her reasoning)'^[15].

It seems that the causal competition principle - related to the concept of guidance control - explains the results of the above discussed experiments better than the transcendence vision which is related to the concept of absolute control. In particular, the results of Nahmias and Thompson's experiment seem to indicate that even when the mental states of the subject are completely determined by earlier causes, the subjects are still inclined to recognize that mental states play a causal role in producing action. On the other hand, responsibility is not ascribed when the actual decision-making mechanism was not able to react adequately to reasons, as in the case when scientists influenced Jill's decision. The lack of threat toward responsibility from determinism is particularly clear in concrete situations, in which a description of the psychological process leading

to the action is given, according to which persons decision-making mechanism is intact. In abstract situations, determinism undermines the causal influence of mental states on behavior because the respondents recognize that it is past events and laws of nature which lead to the action and not mental states of the person. Therefore, the tendency of the respondents not to ascribe responsibility in abstract contexts can be explained in a more simple manner than by introducing the assumption of exclusion from the causal order.

3. Responsibility from the scientific perspective

The above considerations indicate that it is not determinism which threatens responsibility. The threat pertains to the nature of the psychological mechanism leading to action. If this mechanism is not appropriate, it will not allow to justify responsibility ascriptions. A mechanism that would not justify responsibility ascription would have to be of the kind that would, *inter alia*, preclude conscious deliberation to influence action. The scientific image of the world in which there would be no place for responsibility, could be built by psychology or neuroscience. Within these sciences, explanation consists precisely in pointing out the mechanisms responsible for the occurrence of the phenomena being explained^[16]. According to the mechanistic view of the mind and brain, mental and neuronal phenomena can be explained by indicating the components of the mechanisms which produce them as well as their organization and interaction.

¹⁵Ibidem, p. 97.

¹⁶Craver, C. (2007) *Explaining the Brain. Mechanisms and the Mosaic Unity of Neuroscience*, Oxford, p. 2-9; Bechtel, W., Wright, C. (2007) *What is Psychological Explanation?*, in: Symons, J., Calvo, P. (eds.), *The Routledge Companion to Philosophy of Psychology*, New York, p. 119.

In recent decades, there have been many proposals of mechanistic explanations of the operation of the human mind and brain which have severely limited and even ruled out the influence of conscious deliberation on action. The first prominent hypothesis in this context was proposed by Benjamin Libet and his colleagues^[17]. The results of these studies have revealed that brain activity - measured with the help of an electroencephalograph - leading to the movement of a finger precedes the moment when the person becomes aware about her decision to move her finger. This was interpreted by the researchers as undermining the assumption of conscious control over action, which is limited

about the movement was made^[18]. Participants were aware of their decision about half a second before pressing the button. The results of the fMRI study indicated, however, that the activity in the frontopolar cortex, on the basis of which it was possible to predict which button will be pressed, started 7 to 10 seconds before the movement was made. In addition, activity in the additional motor cortex, on the basis of which it was possible to predict when the button will be pressed, occurred about 5 seconds before the movement was performed. The accuracy of these predictions was 60%. These results seem to limit the impact of conscious deliberation on action.

It seems, therefore, that the scientific evidence pertaining to the nature of action control underpinning responsibility does not preclude the influence of conscious deliberation on action, but to some extent limits it.

only to the possibility of inhibiting the action.

Libet's paradigm was used several years ago in the experiment in which functional magnetic resonance imaging (fMRI) was used. This is a much more advanced device for measuring brain activity in comparison to the electroencephalograph. Chun Sion Soon and his colleagues asked their subjects to press the button with their left or right index finger 'when they felt the urge to do so' and to pay particular attention to when the conscious decision

A similar proposal suggesting such epiphenomenalism was proposed by Daniel Wegner^[19]. The starting point of Wegner's considerations is the intuition that our actions are often the result of a conscious choice. However, according to the American psychologist, this intuition is based on illusion. In order to support this thesis, he accepts, just like Libet, a temporal view on conscious choice. Based on the analysis of the results of many psychological and neurocognitive experiments, he states that the processes taking place in

¹⁷Libet, B., Gleason, C., Wright, E., Pearl, D. (1982) Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness Potential). *The Unconscious Initiation of a Freely Voluntary Act*, Brain, vol. 106, p. 623–642.

¹⁸Soon, C., Brass, M., Heinze, H., Haynes, J. (2008) Unconscious Determinants of Free Decisions in the Human Brain, *Nature Neuroscience*, vol. 11, p. 543–545.

¹⁹Wegner, D. (2002) *The Illusion of Conscious Will*, Cambridge, Mass.

the brain, as well as unconscious psychological processes, not only precede the moment of realizing decisions about action, but also constitute the cause of the action. Wegner concludes that: 'Usually, we think we want to do our voluntary actions consciously, but this is an illusion. (...) Conscious will arises from processes that are psychological and anatomically distinct from the processes by which the mind creates action'^[20].

However, in the context of the conditions of responsibility ascription, which is guidance control, these empirical studies do not seem very problematic. The person has guidance control over her action when the actual mechanism leading to the action is weakly reason-responsive. In the case of Libet's experiment, the movement was so simple that it is problematic whether the participants made any conscious deliberation. Wegner also understands his hypothesis about the illusion of conscious will universally, in relation to every action, despite the fact that the research he discusses primarily concerns simple or 'non-standard' activities, such as those that are the result of hypnosis, automatism or the so-called *alien hand syndrome*. In the case of the latter, the mechanism leading to action, does not seem to be reason-responsive, but it only means that Wegner's thesis applies to such special circumstances.

It seems, therefore, that the scientific evidence pertaining to the nature of action control underpinning responsibility does not preclude the influence of conscious deliberation on action, but to some extent limits it. This is in line with one of interesting scientific conceptions about the human mind, according to which it consists of two cognitive systems or two types of cognitive processes. It is proposed within many areas of psychology

(and neuropsychology) and it is claimed to explain such cognitive competences as, for instance, reading^[21], formation of moral judgments^[22], making decisions in conditions of uncertainty^[23], reasoning^[24], induction^[25] or choices^[26]. The basic idea of this conception is that individual cognitive competences of a person are implemented by two types of cognitive processes that differ from one another in the way they process information. The cognitive processes that make up system 1 are automatic, usually unconscious, association-based and non-complex. Due to the fact that these are non-complex processes, they are often referred to as heuristics. In contrast to system 1, system 2 consists of conscious, intentional and complex processes. System 1 plays a dominant role in thought and action, although in some situations system 2 may undermine the 'decision' of system 1.

The two systems account of the mind is well illustrated by the theory of moral judgment

²¹Coltheart, M. et al. (1993) Models of Reading Aloud: Dual Route and Parallel-Distributed – Processing Approaches, *Psychological Review*, vol. 100, p. 589–608.

²²Haidt, J. (2001) The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment, *Psychological Review*, vol. 108, p. 814–834.

²³Gigerenzer, G., Goldstein, D. (1996) Reasoning the Fast and Frugal Way: Models of Bounded Rationality, *Psychological Review*, vol. 103, p. 650–669; Kahneman, D., Frederick, S. (2002) Representativeness Revisited: Attribute Substitution in Intuitive Judgment, in: Gilovich, T., Griffin, D., Kahneman, D. (eds.), *Heuristics & Biases: The Psychology of Intuitive Judgment*, New York, p. 49–81.

²⁴Evans, J., Over, D. (1996), *Rationality and Reasoning*, Hove; Stanovich, K. (1999), *Who is Rational? Studies of Individual Differences in Reasoning*, New York.

²⁵Sloman, S. (1996) The Empirical Case For Two Systems of Reasoning, *Psychological Bulletin*, vol. 119, p. 3–22.

²⁶Wilson, T. (2002) *Strangers to Ourselves: Discovering the Adaptive Unconscious*, Cambridge, Mass.

²⁰Ibidem, p. 29.

proposed by Jonathan Haidt^[27]. According to this theory, the dominant causal role in issuing such judgments intuition, which is shaped almost exclusively by emotional and social factors. All subsequent attempts to justify moral judgments are usually only attempts to rationalize earlier emotional reactions. Cognitive processes responsible for creating moral intuitions belong to system 1. This does not mean that conscious deliberation does not affect these judgments, but cognitive processes belonging to system 2, which are at the basis of these phenomena, play only a marginal role.

According to the two-system theory, the person is not deprived of the possibility of influencing her decisions through conscious deliberation. This theory does not preclude justification of responsibility ascriptions. It seems, however, that at least to some extent this understanding of the human mind, is problematic in the context of ascribing responsibility. For example, the moral judgment and action caused by it, underpinned by the automatic, unconscious, and non-complex associative mechanism seems unable to ap-

propriately respond to reasons. It is not evident whether there are scenarios possible in which this type of mechanism will appropriately respond to sufficient reasons.

4. Summary

In this article two perspectives of inquiry pertaining to responsibility were discussed: philosophical and scientific. Philosophical research pertaining to responsibility has been divided into the research based on the rational method, which consist in the analysis of the concept of responsibility and other concepts in its direct vicinity, and the research based on naturalistic method, which takes into account the empirical findings pertaining to folk intuitions about responsibility. It was argued, however, that despite the methodological differences, the results of the research conducted with these methods boil down to the same condition of responsibility ascription, i.e., guidance control. Next, the empirical evidence pertaining to responsibility was analyzed. It was claimed that while the scientific image of the mind does not undermine the possibility of guidance control, it may in some cases limit it.

²⁷J. Haidt, *The Emotional Dog...*

References

- [1] Bechtel, W., Wright, C. (2009). *What is Psychological Explanation?* in: Symons, J., Calvo, P. *The Routledge Companion to Philosophy of Psychology*, New York: Routledge, p. 113–130.
- [2] Coltheart, M., Curtis, B., Atkins, P., Haller, M. (1993). *Models of Reading Aloud: Dual Route and Parallel-Distributed- Processing Approaches*. *Psychological Review*, p. 100, 589–608.
- [3] Craver, C. (2007). *Explaining the Brain. Mechanisms and the Mosaic Unity of Neuroscience*. Oxford: Oxford University Press.
- [4] Evans, J., Over, D. (1996). *Rationality and Reasoning*. Hove: Psychology Press.
- [5] Fischer, J. M., Ravizza, M. (1998). *Responsibility and Control. A Theory of Moral Responsibility*, Oxford: Oxford University Press.
- [6] Frankfurt, H. (2007). *Alternate Possibilities and Moral Responsibility*, in: Watson, G. (ed.), *Free Will*, Oxford: Oxford University Press, p. 167–176.
- [7] Gigerenzer, G., Goldstein, D. (1996). *Reasoning the Fast and Frugal Way: Models of Bounded Rationality*. *Psychological Review*, p. 103, 650–669.
- [8] Haidt, J. (2001). *The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment*, *Psychological Review*, 108, p. 814–834.
- [9] Hume, D. (1738-40/1975). *A Treatise on Human Nature*. Oxford: Clarendon Press.

- [10] Kahneman, D., Frederick, S. (2002). Representativeness Revisited: Attribute Substitution in Intuitive Judgment, in: Gilovich, T., Griffin, D., Kahneman, D. (eds.), *Heuristics & Biases: The Psychology of Intuitive Judgment*, Cambridge: Cambridge University Press, p. 49–81.
- [11] Kane, R. (1999). Responsibility, Luck, and Chance: Reflections on Free Will and Indeterminism, *Journal of Philosophy*, p. 96, 217–240.
- [12] Knobe, J. (2014). Free Will and Scientific Vision, in: Machery, E. (ed.), *Current Controversies in Experimental Philosophy*, New York: Routledge, p. 69–85.
- [13] Libet, B., Gleason, C., Wright, E., Pearl, D. (1983). Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential). *The Unconscious Initiation of a Freely Voluntary Act*, *Brain*, p. 106, 623–642.
- [14] Nahmias, E., Murray, D. (2010). Experimental Philosophy on Free Will: An Error Theory for Incompatibilist Intuitions, in: Aguilar, J., Buckareff, A., Frankish, K. (eds.), *New waves in philosophy of action*, Hampshire: Palgrave-Macmillan, p. 189–216.
- [15] Nahmias, E., Thompson, M. (2014). A Naturalistic Vision of Free Will, in: Machery, E. (ed.) *Current Controversies in Experimental Philosophy*, New York: Routledge, p. 86–103.
- [16] Nichols, S., Knobe, J. (2008). Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions, in: Knobe, J., Nichols, S. (eds.), *Experimental Philosophy*, Oxford: Oxford University Press, p. 105–128.
- [17] Russell, P. (1995). *Freedom and Moral Sentiment. Hume's Way of Naturalizing Responsibility*. Oxford: Oxford University Press.
- [18] Sloman, S. (1996). The Empirical Case For Two Systems of Reasoning. *Psychological Bulletin*, p. 119, 3–22.
- [19] Soon, C., Brass, M., Heinze, H., Haynes, J. (2008). Unconscious Determinants of Free Decisions in the Human Brain. *Nature Neuroscience*, 11, p. 543–545.
- [20] Stanovich, K. (1999). *Who is Rational? Studies of Individual Differences in Reasoning*. Mahwah, NJ: Erlbaum.
- [21] Strawson, P. (1993). Freedom and Resentment, in: J. Fischer, J. M., Ravizza, M. (red.) *Perspectives on Moral Responsibility*. Ithaca: Cornell University Press, p. 45–66.
- [22] Wegner, D. (2002). *The Illusion of Conscious Will*, Cambridge, MA: MIT Press.
- [23] Wilson, T. (2002). *Strangers to Ourselves: Discovering the Adaptive Unconscious*. Cambridge, MA: Harvard University Press.

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Corresponding author:

Łukasz Kurek; Department of Philosophy of Law and Legal Ethics at the Jagiellonian University, Krakow, Poland; e-mail: lukasz_kurek1@gmail.com

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